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U.S. Patent Application No.: 09/551,537
Attorney Docket No.: OKA-0003 (85424-0003)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In the Patent Application of

Kazuki SUZAWA, *et al.*

Serial No. 09/551,537

Filed: **April 18, 2000**

Group Art Unit: 1774

Examiner: Lawrence D. Ferguson

For: PROCESS FOR PRODUCING OPTICAL RECORDING MEDIUM AND OPTICAL
RECORDING MEDIUM

REPLY BRIEF

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Commissioner for Patents
P.O. Box 1450
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Sir:

This is a Reply Brief under 37 C.F.R. 1.193 responding to the Examiner's
Answer (Paper No. 15) mailed March 27, 2003.

Issue 1 Reply

Claim 1 recites a process for producing an optical recording medium containing an organic solvent in an organic dye layer in an amount of 2% to 15% by weight based on an organic dye. The process comprises applying a solution, prepared by dissolving the organic dye in the organic solvent, onto a light-transmittable substrate by a spin coating method to form the organic dye layer. Thereafter, a reflecting layer is formed

on the organic dye layer without performing a drying treatment of the organic solvent left in the organic dye layer, and further forming a protective layer on the reflecting layer. In this manner, solvent contained in the organic dye layer is not removed via a drying step.

Claim 3 recites an optical recording medium having an organic dye layer, a reflecting layer and a protective layer in this order on a light-transmittable substrate. The optical recording medium contains an organic solvent in the organic dye layer in an amount of 2% to 15% by weight based on an organic dye.

It should be noted that both claims 1 and 3 recite that the organic solvent is contained in the organic dye layer in an amount of 2% to 15% by weight based on the organic dye.

Regarding the issue of whether the examiner erred in rejecting claims 1 and 3-4 under 35 U.S.C. §102(e) as allegedly being obvious over Hurditch et al. '073, Appellants maintain that the examiner continues to misread and misinterpret Hurditch et al. '073. Specifically, the Examiner's Answer continues to allege that, in Hurditch et al. '073, the dye layer may be optionally dried, referring to col. 11, lines 9-10, and further alleges that this means that the dye layer does not necessarily have to undergo a drying treatment. Appellants continue to disagree with this characterization of the reference.

Hurditch et al. '073 at col. 11, lines 9-10 states that "the dye layer may be optionally dried to further remove residual solvent..." (emphasis added). When considered as a whole, this means that the solvent is removed from the applied dye layer under ambient conditions, or that removal of the solvent may be accelerated by additional drying. By stating that the drying is "to further remove," the reference is stating unequivocally that "optionally dried" is in addition to any drying that is already

occurring or has already occurred. While use of the word "optionally" means that there is a choice whether to perform the step, the entire phrase cannot be ignored. That is, while a drying step is optional, it is only optional with respect to the further removal of solvent. There cannot be further removal of the solvent unless some of the solvent has already been removed! "Further" necessarily implies that a process has already started or has occurred, and that something is needed in addition to what has occurred. There should be no doubt that "further removal of solvent" is synonymous with "additional removal of solvent," and that necessarily a step of solvent removal had to have occurred in order for further removal to be a true and accurate statement within the reference. While the step of further solvent removal is optional, the earlier removal step is not optional.

Furthermore, the examiner argues at page 6, lines 1-6 that Appellants are allegedly arguing a feature that is not recited in the rejected claims, namely "additional drying." Appellants object to this assertion by the examiner. Claims 1 and 3 clearly recite the absence of a drying step. Appellants have asserted that in Hurditch et al. '073, an additional drying step is optional, therefore there must be a first, or earlier drying step in Hurditch et al. '073. That is, there is no indication in this reference that the reflective layer is applied to a dye layer whereby no drying step has occurred on the dye layer. That is, Hurditch et al. '073 does not disclose, teach or suggest the absence of a drying step. The examiner's argument is accordingly incorrect, and should not be sustained. Stated differently, Appellants are not claiming the absence of additional drying, rather, Appellants assert that in Hurditch et al. '073, the optional "further drying" necessarily implies a first drying step and an optional second drying step, and that it is the first drying step that is not being claimed. Accordingly, the assertion that Appellants are arguing something that is not claimed is erroneous, and should not be sustained.

Still further, the examiner reiterates, at page 6, lines 6-10, that "Hurditch et al. '073 does not explicitly disclose, teach or suggest the presence of a drying step." As discussed above, Appellants disagree, as Hurditch et al. '073 clearly teaches a drying step. Accordingly, the rejection should not be sustained.

The Examiner's Answer (Paper No. 15) alleges that "Appellant [sic] is dissolving the dye in the amounts of the same range that Appellant [sic] is dissolving the very same types of dyes, also using the same solvent. Therefore, the residual amounts could only be expected to be in the same range, absent any evidence to the contrary." See page 7, lines 10-13. Appellants disagree. Hurditch et al. '073 discloses a concentration of the total solid component in the coating solution for forming the recording layer. Hurditch et al. '073 specifically recite that "The recording layer is formed by dissolving the dye mixture together with any additional nickel stabilizer in a coating solvent at a concentration in the range 2-10% by weight of the total solid components in the solution." Col. 10, lines 26-29 (emphasis added). Accordingly, the amount of 2-10% is the dye plus nickel stabilizer. This is distinct from a content of the organic solvent in the organic dye layer recited in claims 1 and 3. Specifically, claim 1 recites that "an organic solvent in an organic dye layer in an amount of 2 to 15% by weight based on an organic dye...." Accordingly, the examiner is utilizing different components in Hurditch et al. '073 to equate to the recited elements of claims 1 and 3, while Hurditch et al. '073 fails to disclose, teach or suggest a content of the organic solvent in the organic dye layer. Accordingly, it would not be obvious to one of ordinary skill in the art to substitute "an organic solvent in an organic dye layer in an amount of 2 to 15% by weight based on an organic dye" for "dissolving the dye mixture together with any additional nickel stabilizer in a coating solvent at a concentration in the range 2-

10% by weight of the total solid components in the solution” of Hurditch et al. '073. Accordingly, the rejection should not be sustained.

Still further, Appellants have previously asserted that Hurditch et al. '073 does not disclose, teach or suggest this feature. In Appellants Renewed Appeal Brief (Paper No. 14), Appellants stated that “the Examiner has withdrawn the §102 rejection, therefore, the Examiner has now acknowledged that **NOT** all of the features are disclosed in Hurditch et al.,” and that the Examiner has simply converted the §102 rejection to a §103 rejection, and the Examiner has failed to rebut Appellants assertion, a prima facie case of obviousness has not been made, and the rejection should not be sustained.” The examiner responds that “the rejection made in Paper No. 13 was a first office action on the merits, which set forth a prima facie case, which Appellant responded to in the form of an Appeal Brief.” See Examiner’s Answer at page 7, lines 17-19. Appellants object to this characterization. First, Paper No. 13 was not a first office action on the merits, rather, it was a Third Office Action. The examiner reopened prosecution following Appellants previous appeal. Appellant is allowed to renew an appeal. The examiner, by mischaracterizing Paper No. 13, ignores the fact that by simply converting a previous §102 rejection into a §103, the examiner withdrew the §102 rejection. In response to the §102 rejection, Appellants asserted that the missing elements were not “disclosed, taught or suggest” by Hurditch et al. '073. By withdrawing the §102 rejection, the examiner de facto acknowledges the missing elements are not disclosed. However, in the Third Office Action (Paper No. 13) which is the subject of this Appeal, and in the Examiner’s Answer, the examiner failed to rebut that the missing claim elements are not “taught or suggested” by Hurditch et al. '073. Accordingly, a prima facie case of obviousness has not been presented.

Regarding the discussion of the term “optionally,” this is discussed in detail above.

Issue 2 Reply

Regarding the issue of whether the examiner erred in rejecting claims 2 and 5 under 35 U.S.C. §103(a) as allegedly being obvious over Hurditch et al. '073 in view of U.S. Patent No. 5,547,728 to Cunningham et al., the Examiner's Answer now states that "Cunningham cannot overcome the deficiencies of Hurditch since the rejections are based on Hurditch." Examiner's Answer at page 8, lines 12-13. Still further, the examiner in the Examiner's Answer states that "Cunningham was only added to teach the conventionality of the specific solvent." Examiner's Answer at page 8, last 2 lines. This is in contrast to the rejection in Paper No. 13 which is the subject of this appeal, which is restated at paragraph 6 of the Examiner's Answer (Paper No. 15) that "Hurditch is relied upon for claims 1 and 3-4. Hurditch does not disclose the rotating speeds for the spin coating. It would have been obvious to one of ordinary skill in the art to find the optimum rotating speed in order to provide optimal working conditions. Hurditch also does not disclose the organic solvent 2,2,3,3-tetrafluoro-1-propanol." Appellants maintain that the examiner continues to misread and misinterpret Hurditch et al. '073, and that this rejection should not be sustained.

The rotating speed relates to claim 2. As Cunningham et al. '728 is admittedly not being applied to make up for this deficiency in Hurditch et al. '073, the rejection is admittedly improper, and should not be sustained.

Still further, Hurditch et al. '073 does not disclose the rotating speed of 3500 rpm or more, as recited in claim 2, and this is acknowledged by the examiner. Still further, Hurditch et al. '073 does not teach or suggest the rotating speed of 3500 rpm or more, as recited in claim 2. While one in the art can experiment to determine the rotating speed, Hurditch et al. '073 does not suggest experimenting to determine the rotating speed. Accordingly, a prima facie case of obviousness has not been established and

therefore cannot be sustained. Still further, to suggest experimentation to determine the speed of rotation is a result of hindsight reasoning. This is supported by the fact that Hurditch et al. '073 does not teach or suggest determining the rotation speed. For all these reasons, the rejection of claim 2 cannot be sustained.

As discussed in the Renewed Appeal Brief, Cunningham et al. '728 does not make up for the deficiencies of Hurditch et al. '073, discussed above. Still further, Cunningham et al. '728 does not disclose, teach or suggest an optical recording medium having an organic dye layer, a reflecting layer and a protective layer in this order on a light-transmittable substrate, or that the optical recording medium contains an organic solvent in the organic dye layer in an amount of 2% to 15% by weight based on an organic dye, in such a way that would make up for the deficiencies of Hurditch et al. '073, discussed here and above. Accordingly, a prima facie case of obviousness has not been established, and the rejection should not be sustained.

Furthermore, claim 2, being a process claim dependent upon claim 1, and claim 5, being a product claim dependent upon claims 3 or 4, are also allowable for the reasons above. Moreover, these claims are further distinguished by the materials recited therein, particularly within the claimed combination. Accordingly, all §103 rejections should not be sustained.

Conclusion

In view of the foregoing reasons, Appellant submits that the final rejection of claims 1-5 is improper and should not be sustained. Therefore, a reversal of the Rejections contained in the Office Action of October 18, 2002 (Paper No. 13), as to claims 1-5, is respectfully requested.

Respectfully submitted,

Date: May 20, 2003



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